

Claims

- [c1] 1.A method of creating a plurality of dynamic folder hierarchies, comprising:
registering a plurality of design-time folder group definitions for defining a plurality of dynamic folders;
registering a plurality of variable binding expressions for assigning a plurality of documents to a plurality of dynamic folders within the dynamic folder hierarchy; and
translating a plurality of queries to identify a path for retrieving a set of documents associated with the plurality of queries in a context of the dynamic folder hierarchy.
- [c2] 2.The method of claim 1, wherein at least some of the design-time folder group definitions are predetermined by a user.
- [c3] 3.The method of claim 1, wherein at least some of the variable binding expressions are predetermined by a user.
- [c4] 4.The method of claim 1, wherein at least some of the design-time folder group hierarchies comprise at least some of the design-time folder group definitions.

- [c5] 5.The method of claim 1, wherein at least some of the dynamic folder hierarchies comprise at least some of the dynamic folders.
- [c6] 6.The method of claim 1, wherein at least some of the dynamic folders comprise at least some of the documents.
- [c7] 7.The method of claim 1, wherein the set of documents comprise any one or more of structured, semi-structured, and non-structured data.
- [c8] 8.The method of claim 1, wherein in the set of documents comprises an item.
- [c9] 9.The method of claim 1, wherein the set of documents comprises an object graph.
- [c10] 10.The method of claim 1, wherein the set of documents comprises metadata or content in the form of XML.
- [c11] 11.The method of claim 1, wherein the set of documents comprises a content in the form of XML.
- [c12] 12.The method of claim 1, further comprising identifying the dynamic folders that contain the set of documents.
- [c13] 13.The method of claim 1, wherein translating the plurality of queries comprise following a plurality of paths

to locate the set of documents.

[c14] 14.The method of claim 13, further comprising combining the set of documents using a set operation.

[c15] 15.The method of claim 1, further comprising performing parallel navigation to documents along additional paths in a dynamic folder hierarchy.

[c16] 16.A method for creating a plurality of dynamic folder hierarchies, the method comprising:
identifying a collection of data as input data for which the dynamic folder hierarchy may be created;
specifying a design-time folder group and a set of variable binding expressions from which the dynamic folder hierarchy is created;
invoking a dynamic folder hierarchy utility program wherein the collection of data, the design-time folder group, and the set of variable binding expressions are made available to the dynamic folder hierarchy utility program; and
receiving one or more sets of documents in response to a specified document viewing criteria.

[c17] 17.The method of claim 16, further comprising defining a virtual folder hierarchy on an object graph based on object relationship and object content.

- [c18] 18.The method of claim 17, further comprising supporting an external parameter binding in a definition of the virtual folder hierarchy on the object graph.
- [c19] 19.The method of claim 18, wherein supporting the external parameter binding is implemented by an external parameter binding in XQuery.
- [c20] 20.The method of claim 17, further comprising identifying objects in a particular virtual folder.
- [c21] 21.The method of claim 20, wherein identifying the objects is implemented by generating an XQuery query.
- [c22] 22.The method of claim 17, further comprising identifying virtual folders that contain a particular object.
- [c23] 23.The method of claim 22, wherein identifying the virtual folders is implemented by generating an XQuery query.
- [c24] 24.The method of claim 17, further comprising combining results of multiple paths using set operations.
- [c25] 25.The method of claim 14, wherein combining results of multiple paths is implemented by generating an optimized XQuery query.
- [c26] 26.A system for creating a plurality of dynamic folder hi-

erarchies, comprising:

a query/predicate processor for registering a plurality of design-time folder group definitions for defining a plurality of dynamic folders;

a variable binding processor for registering a plurality of variable binding expressions for assigning a plurality of documents to a plurality of dynamic folders within the dynamic folder hierarchy; and

a navigation processor for translating a plurality of queries to identify a path for retrieving a set of documents associated with the plurality of queries in a context of the dynamic folder hierarchy.

[c27] 27.The system of claim 26, wherein at least some of the design-time folder group definitions are predetermined by a user.

[c28] 28.The system of claim 26, wherein at least some of the variable binding expressions are predetermined by a user.

[c29] 29.The system of claim 26, wherein at least some of the design-time folder group hierarchies comprise at least some of the design-time folder group definitions.

[c30] 30.The system of claim 26, wherein at least some of the dynamic folder hierarchies comprise at least some of the

dynamic folders.

- [c31] 31. A computer program product having a plurality of executable instruction codes for creating a plurality of dynamic folder hierarchies, comprising:
a first set of instruction codes for registering a plurality of design-time folder group definitions for defining a plurality of dynamic folders;
a second set of instruction codes for registering a plurality of variable binding expressions for assigning a plurality of documents to a plurality of dynamic folders within the dynamic folder hierarchy; and
a third set of instruction codes for translating a plurality of queries to identify a path for retrieving a set of documents associated with the plurality of queries in a context of the dynamic folder hierarchy.
- [c32] 32. The system of claim 31, wherein at least some of the design-time folder group definitions are predetermined by a user.
- [c33] 33. The system of claim 31, wherein at least some of the variable binding expressions are predetermined by a user.
- [c34] 34. The system of claim 31, wherein at least some of the design-time folder group hierarchies comprise at least

some of the design-time folder group definitions.

- [c35] 35. The system of claim 31, wherein at least some of the dynamic folder hierarchies comprise at least some of the dynamic folders.